

CLAIMS

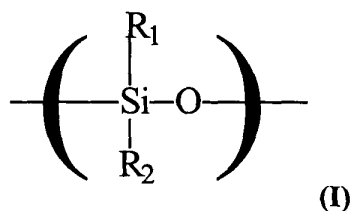
What is claimed is:

1. A composition comprising:
a silicone coating agent comprising polysiloxane, a polysiloxane precursor, or combinations thereof;
a solvent-emulsifier comprising at least one C₂-C₁₀ fluorinated hydrocarbon compound containing not less than about 55 percent by weight and no more than about 76 percent by weight of fluorine, said at least one fluorinated hydrocarbon compound being present in the composition in an amount sufficient to emulsify or to solvate substantially all of said silicone coating agent.
2. The coating composition of claim 1 wherein said at least one fluorinated hydrocarbon comprises a hydrofluorocarbon.
3. The coating composition of claim 1 wherein said at least one fluorinated hydrocarbon comprises a C₂-C₆ hydrofluorocarbon.
4. The coating composition of claim 2 wherein said hydrofluorocarbon contains not less than about 55 percent by weight and no more than about 70 percent by weight of fluorine.
5. The coating composition of claim 1 wherein said at least one fluorinated hydrocarbon is selected from the group consisting of HFC-245fa, HFC-365mfc, HFE-7100, HFE-7200, and combinations of two or more thereof.
6. The coating composition of claim 1 wherein said solvent-emulsifier comprises from about 50 percent by weight to about 99 percent by weight of the composition.
7. The coating composition of claim 1 wherein said solvent-emulsifier comprises from about 90 percent by weight to about 99 percent by weight of the composition.

8. The coating composition of claim 1 wherein said solvent-emulsifier comprises from about 95 percent by weight to about 99 percent by weight of the composition.

9. The coating composition of claim 1 wherein said silicone coating agent comprises an organically modified polysiloxane.

10. The coating composition of claim 9 wherein said organically modified polysiloxane comprises a repeating unit described by the formula I



wherein R_1 and R_2 are the same or different, each independently representing an alkyl group, an aryl group, a group including a polyether unit, or a group including a polyester unit.

11. The coating composition of claim 10 wherein at least one of said R_1 and R_2 groups is an alkyl group having from about 1 to about 4 carbons.

12. The coating composition of claim 11 wherein said alkyl group is methyl, ethyl, or propyl.

13. The coating composition of claim 12 wherein said alkyl group is methyl.

14. The coating composition of claim 10 wherein R_1 and R_2 are both methyl.

15. The coating composition of claim 10 wherein said polysiloxane has a viscosity of from about 1 to about 1,000,000 centistokes at 25°C.

16. The coating composition of claim 13 wherein said polysiloxane has a viscosity

of from about 5 to about 100,000 centistokes at 25°C.

17. The coating composition of claim 1 wherein said silicone agent comprises from about 0.005 weight percent to about 25 weight percent of the composition.

18. The coating composition of claim 1 wherein said silicone agent comprises from about 0.05 weight percent to about 10 weight percent of the composition.

19. The coating composition of claim 1 wherein said silicone agent comprises from about 0.05 weight percent to about 5 weight percent of the composition.

20. The coating composition of claim 1 further comprising a surfactant, said at least one fluorinated hydrocarbon compound and said surfactant together being present in the composition in amounts sufficient to emulsify or to solvate substantially all of said silicone coating agent.

21. The coating composition of claim 20 wherein said surfactant comprises an ethoxylate surfactant.

22. The coating composition of claim 1 further comprising one or more VOC components which in the aggregate comprise less than about 20% by weight of the composition.

23. A method of applying a silicone coating to a substrate comprising:
providing a composition comprising: (a) a silicone coating agent comprising polysiloxane, a polysiloxane precursor, or combinations thereof; and (b) a solvent-emulsifier comprising at least one C₂-C₁₀ fluorinated hydrocarbon compound containing not less than about 55 percent by weight and no more than about 75 percent by weight of fluorine, said at least one fluorinated hydrocarbon compound being present in the composition in an amount sufficient to emulsify or to solvate substantially all of said silicone coating agent; and
contacting a substrate to be coated with said provided composition.